



## **NUCLEAR REGULATORY COMMISSION**

**[Docket Nos. 52-025 and 52-026; NRC-2008-0252]**

### **Southern Nuclear Operating Company, Inc.; Vogtle Electric Generating Plant Units 3 and 4**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Exemption; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC, the Commission) is issuing an exemption from the Commission's regulations that require a written examination and operating test to be requested and administered to 72 licensed operator candidates at Vogtle Electric Generating Plant (VEGP) Unit 4 in response to Southern Nuclear Operating Company, Inc.'s (SNC) request dated July 8, 2021, as supplemented by letter dated October 1, 2021. The NRC is effectively giving these 72 candidates credit for the written examination and operating test that they already took and passed at VEGP Unit 3.

**DATES:** The exemption was issued on November 22, 2021.

**ADDRESSES:** Please refer to Docket ID **NRC-2008-0252** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2008-0252**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: [Stacy.Schumann@nrc.gov](mailto:Stacy.Schumann@nrc.gov). For technical questions, contact the individual listed in the

**FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please

contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document. The request for the exemption was submitted by letter dated July 8, 2021 and is available in ADAMS under Package Accession No. ML21189A153. The request was supplemented by letter dated October 1, 2021 (ADAMS Package Accession No. ML21281A214).

- **NRC's PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays

**FOR FURTHER INFORMATION CONTACT:** Cayetano Santos Jr., Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-7270; email: [Cayetano.Santos@nrc.gov](mailto:Cayetano.Santos@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Background**

SNC, Georgia Power Company, Oglethorpe Power Corporation, MEAG Power SPVM, LLC, MEAG Power SPVJ, LLC, MEAG Power SPVP, LLC, and the City of Dalton, Georgia are the holders of facility Combined License (COL) Nos. NFP-91 and NPF-92, which authorize the construction and operation of VEGP Units 3 and 4. The facilities consist of two Westinghouse Electric Company (Westinghouse) AP1000 pressurized-water reactors (PWRs) located in Burke County, Georgia. The licenses are subject to the rules, regulations, and orders of the NRC.

Appendix D, "Design Certification Rule for the AP1000 Design," to title 10 of the *Code of Federal Regulations* (10 CFR) part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," constitutes the standard design certification for the

Westinghouse AP1000 design, in accordance with 10 CFR part 52, subpart B, "Standard Design Certifications." "Standard design" is defined in 10 CFR 52.1, "Definitions," as "a design which is sufficiently detailed and complete to support certification or approval in accordance with subpart B or E of [10 CFR part 52], and which is usable for a multiple number of units or at a multiple number of sites without reopening or repeating the review."

## **II. Request/Action**

Pursuant to 10 CFR 55.11, "Specific exemptions," by letter dated July 8, 2021 (ADAMS Package Accession No. ML21189A153), as supplemented by letter dated October 1, 2021 (ADAMS Package Accession No. ML21281A214), SNC requested an exemption from the requirements in 10 CFR 55.31, "How to apply," paragraph (a)(3) and 10 CFR 55.33(a)(2), "Written examination and operating test," on behalf of 72 operators who are licensed to operate VEGP Unit 3 and are requesting a license on VEGP Unit 4. Enclosure 1 of the July 8, 2021, letter contains SNC's justification for the requested exemption. Enclosure 2 of the July 8, 2021, letter identifies the subject operators by name and docket number. Enclosure 3 of the July 8, 2021, letter includes a sample of NRC Form 398, "Personnel Qualification Statement – Licensee." The NRC's granting of the requested exemption is based on Enclosure 1 of the July 8, 2021, letter, as supplemented by the enclosure of the October 1, 2021, letter. Enclosure 2 of the July 8, 2021, letter is superseded by the enclosure of the October 1, 2021, letter. The NRC staff did not review Enclosure 3 of the July 8, 2021, letter. The exemption is valid only for the 72 licensed operator candidates identified in the enclosure of the October 1, 2021, letter.

10 CFR 55.31(a)(3) requires each applicant for an operator's license to submit a written request that the written examination and operating test be administered to the applicant. This written request must come from an authorized representative of the facility licensee by which the applicant will be employed. 10 CFR 55.33(a)(2) states, in part, that the Commission will approve an initial application for a license if it finds that the

applicant has passed the requisite written examination and operating test in accordance with 10 CFR 55.41 and 55.45 or 55.43 and 55.45. The written examinations and operating tests determine whether an applicant for an operator's license has learned to operate a facility competently and safely, and additionally, in the case of a senior operator, whether the applicant has learned to direct the licensed activities of licensed operators competently and safely. Written examinations administered to operator candidates must contain a representative sample from among the topics listed in 10 CFR 55.41(b)(1)-(14), and additionally, written examinations administered to senior operator candidates must contain a representative sample from among the topics listed in 10 CFR 55.43(b)(1)-(7). Operating tests must contain a representative sample from among the topics listed in 10 CFR 55.45(a)(1)-(13).

Additionally, 10 CFR 55.40(a) requires the Commission to use the criteria in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors" (ADAMS Accession No. ML17038A432), in effect 6 months before the examination date to prepare the written examinations required by 10 CFR 55.41 and 55.43 and the operating tests required by 10 CFR 55.45 and to evaluate the written examinations and operating tests prepared by power reactor facility licensees. Preparing the written examinations and operating tests using the appropriate knowledge and abilities catalog, in conjunction with NUREG-1021, ensures that the written examinations and operating tests include a representative sample of the items specified in 10 CFR 55.41, 55.43, and 55.45.

NUREG-2103, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Westinghouse AP1000 Pressurized Water Reactors" (ADAMS Accession No. ML20357A103), was developed specifically for Westinghouse AP1000 PWRs. NUREG-1021, Appendix A, "Overview of Generic Examination Concepts," explains that the knowledge and abilities catalogs provide the basis for the development of content-valid examinations for reactor operators (ROs) and senior reactor operators (SROs), consistent with the applicable testing industry standards. NUREG-1021, Appendix A

further explains the concept of content-validity and states, in part, that “[i]n the case of the NRC examinations, the intent is to measure the examinee’s knowledge and ability (K/A) such that those who pass will be able to perform the duties of [an RO or an SRO] to ensure the safe operation of the plant.”

In accordance with the guidance in NUREG-1021, Section ES-401N, “Preparing Initial Site-Specific Written Examinations,” a sample plan needs to be prepared for each written examination. Section ES-401N states, in part, that this involves “[s]ystematically and randomly select[ing] specific K/A statements (e.g., K1.03 or A2.11) from NUREG-2103 (for AP-1000) ... to complete each of the three tiers (i.e., Tier 1, ‘Emergency and Abnormal Plant Evolutions’; Tier 2, ‘Plant Systems’; and Tier 3, ‘Generic Knowledge and Abilities’) of the applicable examination outline.” For the AP1000, NUREG-1021, Form ES-401N-2, “AP1000 Examination Outline,” is the applicable examination outline. Once the written examination outline is complete, written examination questions can be developed from the K/A statements selected for the examination as documented on the examination outline. The K/A catalog is also used to select topics for the operating test, which consists of an individual walkthrough portion and a simulator test portion.

### **III. Discussion**

Pursuant to 10 CFR 55.11, the Commission may, upon application by an interested person, or upon its own initiative, grant exemptions from the requirements of 10 CFR part 55, “Operators’ Licenses,” as it determines (1) are authorized by law, (2) will not endanger life or property, and (3) are otherwise in the public interest.

#### **A. The Exemption Is Authorized by Law**

Exemptions are authorized by law where they are not expressly prohibited by statute or regulation. A proposed exemption is implicitly authorized by law if it will not endanger life or property and is otherwise in the public interest and no other provisions in law prohibit, or otherwise restrict, its application. The NRC has reviewed the exemption request and finds that granting the proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or other laws. Accordingly, the

NRC finds that the exemption is authorized by law.

**B. The Exemption Will Not Endanger Life or Property**

Pursuant to 10 CFR 55.33(a)(2), the Commission will approve an initial application for a license if it finds, in part, that the applicant has passed the requisite written examination and operating test in accordance with 10 CFR 55.41 and 55.45 or 55.43 and 55.45. These examinations and tests determine whether the applicant for an operator's license has learned to operate a facility competently and safely, and additionally, in the case of a senior operator, whether the applicant has learned to direct the licensed activities of licensed operators competently and safely. Competent and safe operators protect against endangerment of life or property. Accordingly, where examinations and tests adequately determine who is competent, those examinations and tests are protective of and do not endanger life or property.

The 72 licensed operator candidates identified in the enclosure of the letter dated October 1, 2021, already took and passed an NRC written examination and an operating test for VEGP Unit 3, which were prepared and evaluated using the criteria in NUREG-1021 and the K/As in NUREG-2103. An NRC examination for VEGP Unit 4 would also use the criteria in NUREG-1021 and the K/As in NUREG-2103 to define its scope, format, and content. Specific test items, such as the individual written examination questions, would therefore be applicable to both VEGP Units 3 and 4, unless there were differences between the two units that could alter the content of a particular test item or job performance measure (JPM).

As discussed in Enclosure 1, Section 2.0, of the letter dated July 8, 2021, SNC conducted an analysis to identify and evaluate the differences between VEGP Units 3 and 4 and to determine whether they would impact how operators perform tasks at each unit. SNC concluded that there were a few minor differences identified to date in the Waste Water and Offsite Power Systems. The differences between VEGP Units 3 and 4 related to the Waste Water Systems consisted of naming and indication differences only, and SNC stated that these differences do not impact how operators perform tasks. The

difference between VEGP Units 3 and 4 related to the Offsite Power Systems is a physical difference, in that VEGP Unit 3 is connected to a 230 kilovolt (kV) switchyard and VEGP Unit 4 is connected to a 500 kV switchyard. Although the voltages of the switchyards are different between VEGP Units 3 and 4, SNC's analysis concluded that all components manipulated by operators are mechanically identical and are operated identically despite having different labels and designators. As a result, the identified differences in the Offsite Power Systems have no operational impact in performing Abnormal or Emergency Operating Procedures. SNC also conducted a Training Needs Analysis, and this analysis concluded that the differences between VEGP Units 3 and 4 require no additional training and that no new/modified examination questions, scenarios, or JPMs are needed. Therefore, the NRC written examination and operating test for VEGP Unit 3 already taken and passed by the 72 licensed operator candidates was of the same structure, scope, and format as the NRC written examination and operating test that they would have to take for VEGP Unit 4, and it also tested topics that are relevant to the operation of both VEGP Units 3 and 4.

In Enclosure 1, Section 4.0, of the letter dated July 8, 2021, SNC states, in part, that the VEGP Units 3 and 4 "continuing training program is based on the requirements defined in 10 CFR part 55.59 and is accredited through the National Academy for Nuclear Training." In addition, the training program uses a systematic approach to training process to assess whether differences impact operators' performance of tasks on each unit and also the extent to which the training program needs to be adjusted to ensure that operators are adequately trained to perform those tasks at both units.

Based on the above, the NRC determined that the 72 licensed operator candidates' knowledge and abilities associated with the operation of VEGP Unit 4 have already been assessed by the NRC written examination and operating test given for VEGP Unit 3, and that by passing that examination and test, these individuals have demonstrated that they are also competent to safely operate VEGP Unit 4. Accordingly, the NRC finds that the exemption will not endanger life or property.

### **C. The Exemption Is Otherwise in the Public Interest**

The Commission's values guide the NRC in maintaining certain principles of good regulation as it carries out regulatory activities in furtherance of its safety and security mission. These principles focus the NRC on ensuring safety and security while appropriately considering the interests of the NRC's stakeholders, including the public and licensees. These principles are Independence, Openness, Efficiency, Clarity, and Reliability. Independence relates to NRC decisions being based on objective, unbiased assessments of all information. Openness relates to the NRC conducting its regulatory activities publicly and candidly. Efficiency relates to the NRC ensuring that its regulatory activities are consistent with the degree of risk reduction they achieve; adopting the option, where several effective alternatives are available, that minimizes the use of resources; and making regulatory decisions without delay. Clarity relates to NRC positions being readily understood and easily applied. Reliability relates to established regulations being perceived to be reliable and not unjustifiably in a state of transition. The NRC's principles of good regulation can also provide guidance as to whether the granting of a particular exemption is otherwise in the public interest.

On balance, the NRC's principles of good regulation demonstrate that the granting of the requested exemption is otherwise in the public interest. First, as clearly, openly, and independently determined above, the 72 licensed operator candidates identified in the enclosure of the October 1, 2021, letter each passed a written examination and operating test for VEGP Unit 3 that also covered all content that is applicable to VEGP Unit 4.

Second, concerning the principle of efficiency, in Enclosure 1, Section 5.3, of the July 8, 2021, letter, SNC explained that if the exemption is granted, then training resources will be available to meet other site training needs and to ensure that trained operations personnel are available to support ongoing activities at VEGP Unit 3 including testing and fuel load. The NRC staff will also not have to devote resources to preparing and validating additional written examinations and operating tests for these 72 licensed



operator candidates. Additionally, these operators will be able to remain in the continuing training program for VEGP Units 3 and 4, which will help to ensure that they maintain proficiency in topics included in the initial training program and that they also receive training on any changes made to the plant design or procedures prior to fuel load and plant operation. For these reasons, the NRC finds that granting the exemption is an effective and efficient alternative to requiring the 72 licensed operator candidates to take another written examination and operating test to be licensed on VEGP Unit 4.

Finally, concerning the principle of reliability, the NRC has already found that the 72 licensed operator candidates have the necessary knowledge and abilities to operate VEGP Unit 3 safely and competently. As discussed above, by granting the requested exemption, the substantive requirements upon the licensed operator candidates are unchanged. Furthermore, the public has an interest in reliability in terms of the stability of the nuclear regulatory planning process. If granted, this exemption aids planning by the NRC and the industry by allowing the 72 license operator candidates to complete their applications sooner, with the underlying requirements essentially unchanged, and could result in licensing decisions being made earlier than would be possible if the candidates had to wait to also take a written examination and operating test for VEGP Unit 4.

Based on the above, the NRC finds that the exemption is otherwise in the public interest.

#### **D. Environmental Considerations**

The NRC has determined that granting this exemption from the requirements of 10 CFR 55.31(a)(3) and 10 CFR 55.33(a)(2) involves (i) no significant hazards consideration, (ii) no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, (iii) no significant increase in individual or cumulative public or occupational radiation exposure, (iv) no significant construction impact, and (v) no significant increase in the potential for or consequences from radiological accidents.

The granting of this exemption involves no significant hazards consideration because:

- The exemption does not alter the design, function, or operation of any plant equipment; therefore, granting the exemption would not increase the probability or consequences of an accident previously evaluated.
- The exemption does not create any new accident initiators; therefore, granting the exemption would not create the possibility of a new or different kind of accident from any accident previously evaluated.
- The exemption does not exceed or alter a design basis or safety limit; therefore, granting the exemption would not involve a significant reduction in a margin of safety.

There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite because this exemption does not affect any effluent release limits as provided in the facility licensee's technical specifications or the regulations in 10 CFR part 20, "Standards for Protection Against Radiation." There is no significant increase in individual or cumulative public or occupational radiation exposure because the exemption does not affect the limits provided in 10 CFR part 20 for radiation exposure to workers or members of the public. There is no significant construction impact because the exemption does not involve any construction activities or changes to a construction permit. There is no significant increase in the potential for or consequences from radiological accidents because the exemption does not alter any of the assumptions or limits in the facility licensee's safety analysis.

The NRC determined, per 10 CFR 51.22(c)(25)(vi)(E), that the requirements from which the exemption is sought involve education, training, experience, qualification, requalification, or other employment suitability requirements. Accordingly, the exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(25). Therefore, in accordance with 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with granting the requested

exemption.

#### **IV. Conclusion**

Accordingly, the Commission has determined that, pursuant to 10 CFR 55.11, the exemption is authorized by law, will not endanger life or property, and is otherwise in the public interest. Therefore, effective immediately, the Commission hereby grants the request to exempt the 72 licensed operator candidates listed in the enclosure of letter dated October 1, 2021, from the 10 CFR 55.31(a)(3) and 10 CFR 55.33(a)(2) requirements that a written examination and operating test be requested and administered to them for VEGP Unit 4, effectively giving these candidates credit for the written examination and operating test that they already took and passed for VEGP Unit 3.

Dated: November 22, 2021.

For the Nuclear Regulatory Commission.

Gregory T. Bowman,  
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